REMARKS

A. OVERVIEW

Claims 1-10 and 13-52 are pending in the present application. The Examiner has issued another rejection to the claims. The Office Action states that Applicant's prior response and arguments mooted the Examiner's prior rejections. However, the Examiner has entered new grounds of rejections based, in part, on new prior art.

This new Office Action and the newly cited art have been carefully reviewed. The present response is filed in conjunction with a Request for Continued Examination (RCE). Reconsideration is respectfully requested. The sole issue is whether the claims are obvious based on the art cited in the new Action.

B. 35 U.S.C. § 103 REJECTIONS

All claims 1-52 stand rejected on the new combination of the following references:

Whitten	U.S. 6,732,014
Balch	U.S. 5,113,130
Gray	U.S. Re 33,668

The Office Action concedes that the primary reference Whitten does not disclose each emitter having a beam spread which can be sensed by all detectors. As understood, the new Action takes the position that newly cited Gray describes a "wider beam spread so all detectors can receive the signal because it provides more complete coverage over an opening." (Office Action page 3, first paragraph). The Action also cites Balch for the proposition that it teaches the concept of turning off all emitters and monitoring detectors for malfunction.

A *prima facie* case of obviousness requires that the combination of references not only suggest a combination of their teaching, but that once combined the teaching appears to show the specific combination of limitations in Applicant's claim as interpreted by one of ordinary skill in the art. It is respectfully submitted that no combination of references in the Action meets this test for the following reasons.

Consider Applicant's claim 1. The following three material limitations exist in claim 1:

1. "placing a set of optical detectors at spaced apart locations on a generally opposite side of the dispensing area in the emitter beam spread for each emitter of the set".
2. "each detector having on and off states, the on state adapted for sensing of at least a threshold level of optical energy of said predetermined characteristics from a detector viewing angle including each emitter of the set".
3. "holding all the emitters in the off state for a time period, monitoring the state of all the detectors and if any detector indicates an on state generating an output signal to indicate a possible error condition".

None of the three cited references have any of these limitations. Therefore, even for argument's sake, if their teachings were combined they would not *prima facie* show the specific combination of Applicant's claim 1.

Consider Whitten. The Office Action admits Whitten does not disclose or teach limitation 1 above. Throughout Whitten, it specifically describes having a limited set of between one and three detectors for each emitter. It includes hardware and other techniques to limit what each detector sees. It therefore teaches away from emitters spreading to cover all detectors and detectors seeing all emitters.

See for example Whitten, column 4, line 24 which describes each emitter being configured to emit energy to a set of three detectors out of ten on the opposite side.

Regarding limitation 2, Whitten also specifically describes limiting what each detector can see. The Whitten system limits which detectors are active during each emitter on time. See Whitten, column 5, lines 1-50. Not all detectors are active at one time.

Finally, nowhere was it found in Whitten where limitation 3 is disclosed or taught. During both monitoring and calibration mode, sets of one to three detectors are always on while each emitter cycles through its on and off states. There is nothing found that describes a specific technique of holding all emitters off and checking for detector error (e.g. a false showing of an emitter being on during a time all emitters are actually off). Whitten does describe taking action if a detector fails to detect an emitter when the emitter is on (see column, line 42). It does the opposite of Applicant's claims, it watches to see if all three detectors of the set see its corresponding emitter when it is on. It can also adjust intensity of the detectors based on the magnitude of the signals it receives when an emitter is on. Again, this is opposite of limitation 3.

Consider Balch. It does disclose one or two emitters and a corresponding detector or detectors. This is irrelevant to limitations 1, 2, or 3. It is furthermore irrelevant in the sense that Balch discloses an optical sensor looking at how fast teeth of a disc interrupt the beam(s) from the emitter(s) to essentially determine energy usage by an electric meter. The Examiner is correct that Balch discloses a method of testing operation of the optical sensing combination of the emitter(s)/detector(s). But the described reading of the light detectors "prior to pulsing of the light emitters" is not to detect falsing of the detector(s) but to sense whether someone is tampering with the meter by shining light on the meter when the emitter is not on. See column 3, lines 8-17 and column 6, lines 51-68. A light tampering error signal is generated not because of

the falsing of a detector when an emitter is off, but rather the sensing of external light when an emitter is off. Balch does describe testing operation of the emitters periodically but by testing current through the emitters (not testing for any falsing). Column 2, lines 56-61; column 4, line 63 – column 6, line 12.

Also, while it is true that Balch describes a pair of emitters and a pair of detectors, they really operate as one emitter and one detector. See column 4, lines 25-53.

Consider Gray. Gray specifically describes diagonal directional emitters aimed at four detectors A, B, C and D. (See Figures 1 and 2). Note how those detectors are in upper and lower corners on opposite sides of the open space being optically monitored. More importantly, Gray specifically teaches that only one sensor 13 or 23 is monitored at any one time. See column 3, lines 27 and 30. Specifically, Gray states:

> "... each sensor is monitored in a second sequence so that one emitter is energized and one sensor is monitored, at any time. For example, each of the emitters 12 is energized in sequence while one of the sensors 23 is monitored; then each of the emitters 22 is energized sequentially while one of the sensors 13 is monitored. After that, each of emitters 12 are again sequentially energized while the other (the second of the sensors 23) is monitored. Then the emitters of sensors 22 are again sequentially energized while the other (the second sensor 13) is monitored."

Column 3, lines 26-36 (emphasis added).

See also column 4, lines 3-9 which states:

"Each path is thus monitored for obstruction once in an overall sequence, and, because the sensor does not receive radiation from other emitters and no other emitter is activated, the sensor is highly sensitive to the obstruction. For maximum sensitivity, the sensitivity of the sensors may be adjusted in synchronization with the energization of the emitters, since each path involves a unique combination of sensor and emitter."

Therefore Gray does not meet the limitation that each emitter has a beam spread which covers all detectors. See limitation 1 above. Nor does Gray teach the limitation that each

detector sees all emitters. Limitation 2. And finally, Gray is not seen to disclose limitation 3, that all emitters are intentionally held off for a period and all detectors are monitored for malfunction.

It is therefore respectfully submitted that the combination of references does not teach or suggest Appliant's claim 1. It is respectfully submitted Applicant's claim 1 is allowable over that combination of references.

Applicant's claim 20 has a similar combination of limitations, as do independent claims 30 and 40 and 50. For these reasons it is respectfully submitted all independent claims pending in Applicant's application, as well as all dependent claims, are not obvious in light of the cited references.

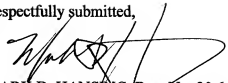
CONCLUSION

It is respectfully submitted that all matters raised in the Office Action have been addressed and remedied and at that this response places the Application in form for allowance. Favorable action is respectfully requested.

This amendment accompanies the filing of a Request for Continued Examination (RCE). Please charge Deposit Account No. 26-0084 the amount of $405.00 for the RCE per the attached transmittal.

Please also consider this a Request for One-Month Extension of Time from October 17, 2008 to November 17, 2008 and charge Deposit Account No. 26-0084 the amount of $65.00 for this extension. It is not believed that any additional fees or request for extension of time are required for entry of this response but if has been inadvertently overlooked, please consider this a request therefore and charge any required fees to Deposit Account No. 26-0084.

Respectfully submitted,



MARK D. HANSING, Reg. No. 30,643
McKEE, VOORHEES & SEASE, P.L.C.
801 Grand Avenue, Suite 3200
Des Moines, Iowa 50309-2721
Phone No: (515) 288-3667
Fax No: (515) 288-1338
CUSTOMER NO: 22885

Attorneys of Record

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